

FIG. 1

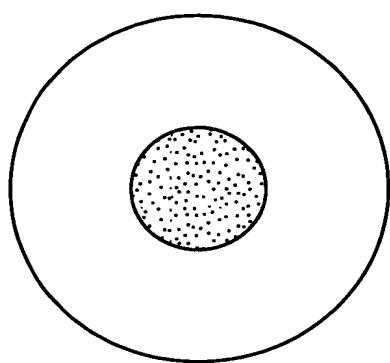


FIG. 2

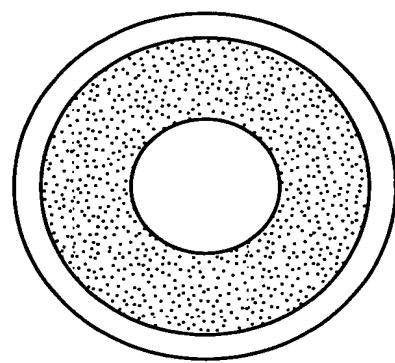


FIG. 3

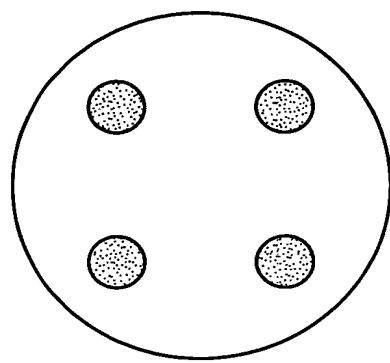


FIG. 4

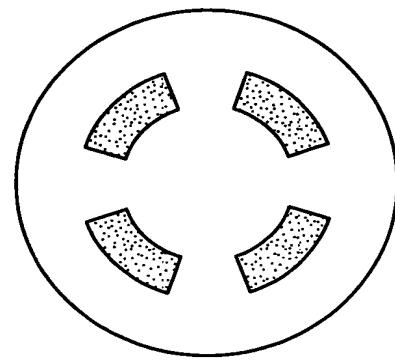


FIG. 5

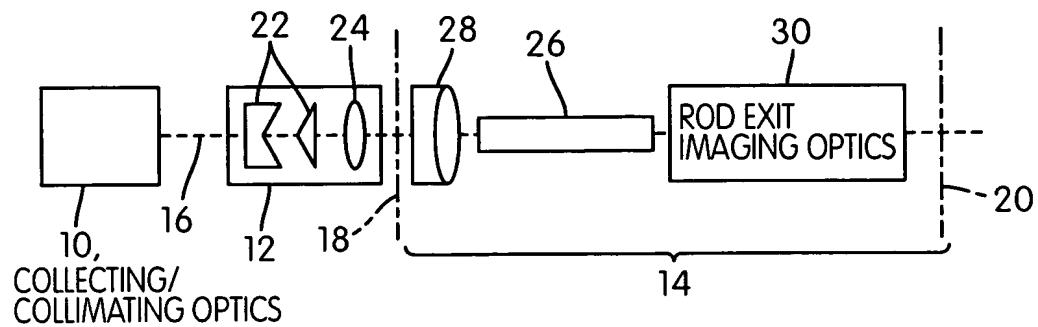


FIG. 6

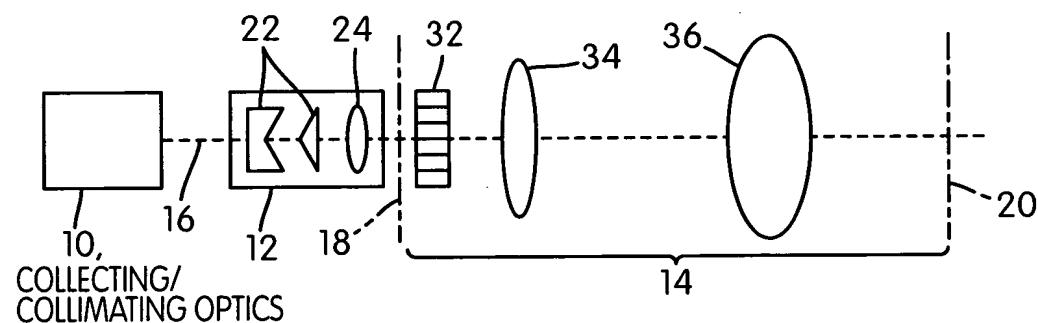


FIG. 7

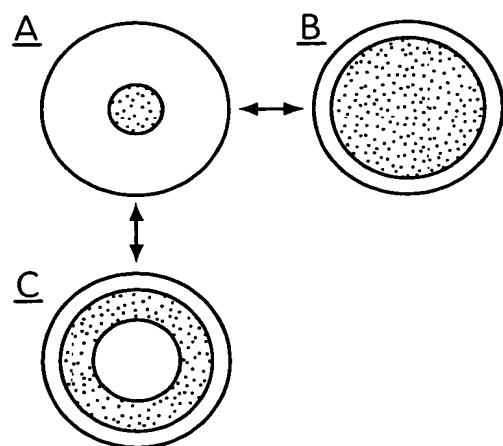


FIG. 8

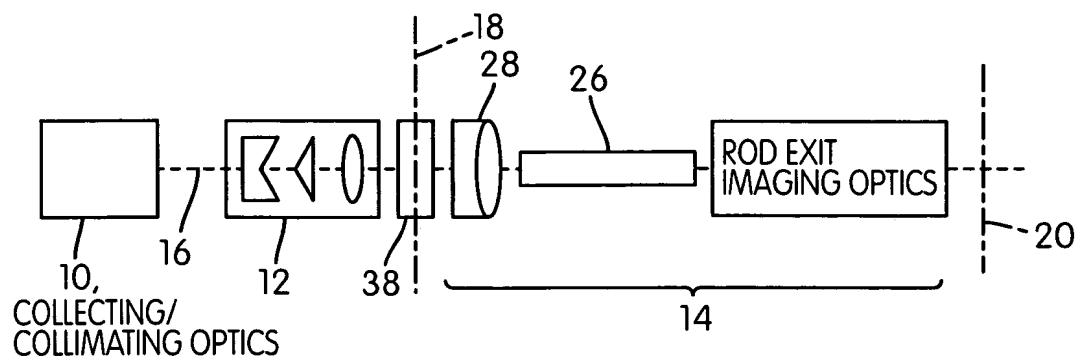


FIG. 9

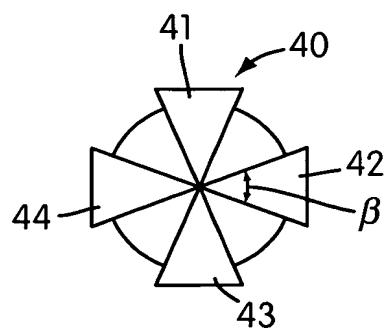


FIG. 10a

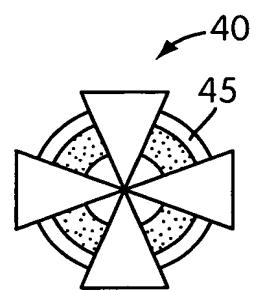


FIG. 10b

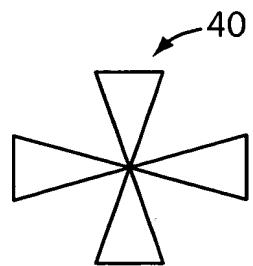


FIG. 11

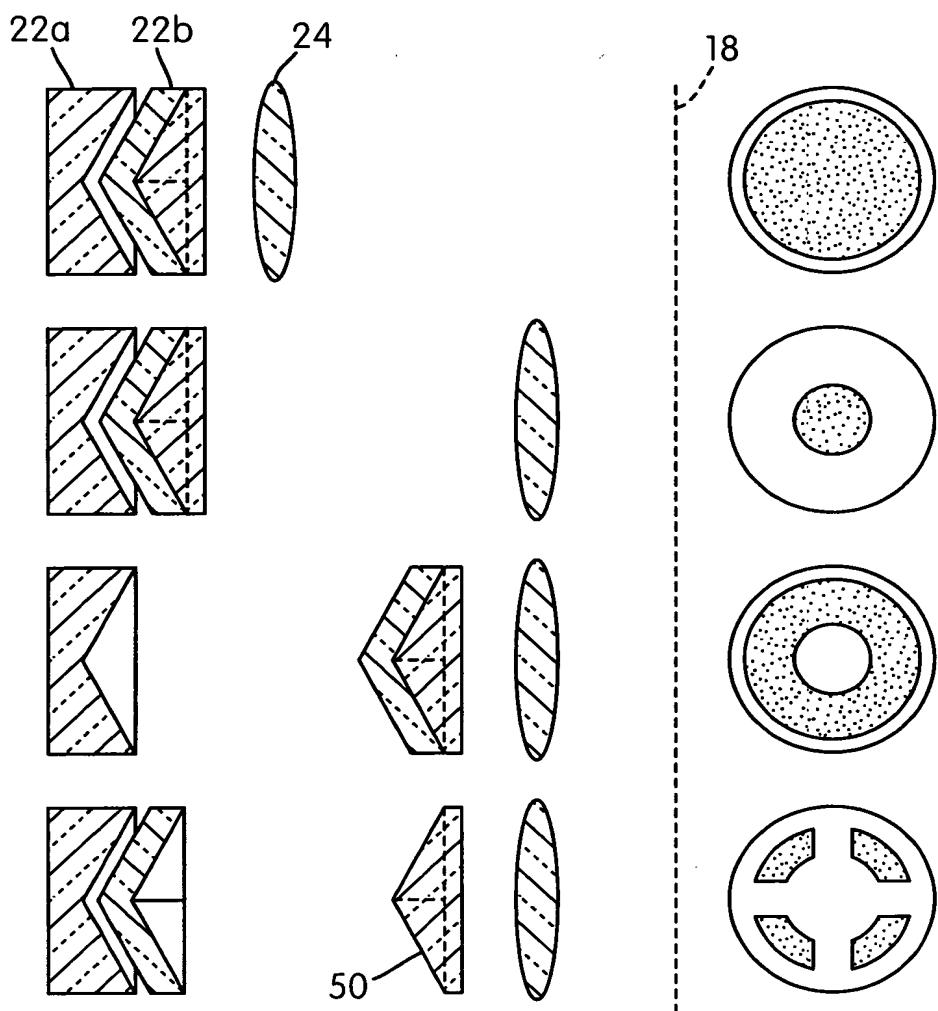
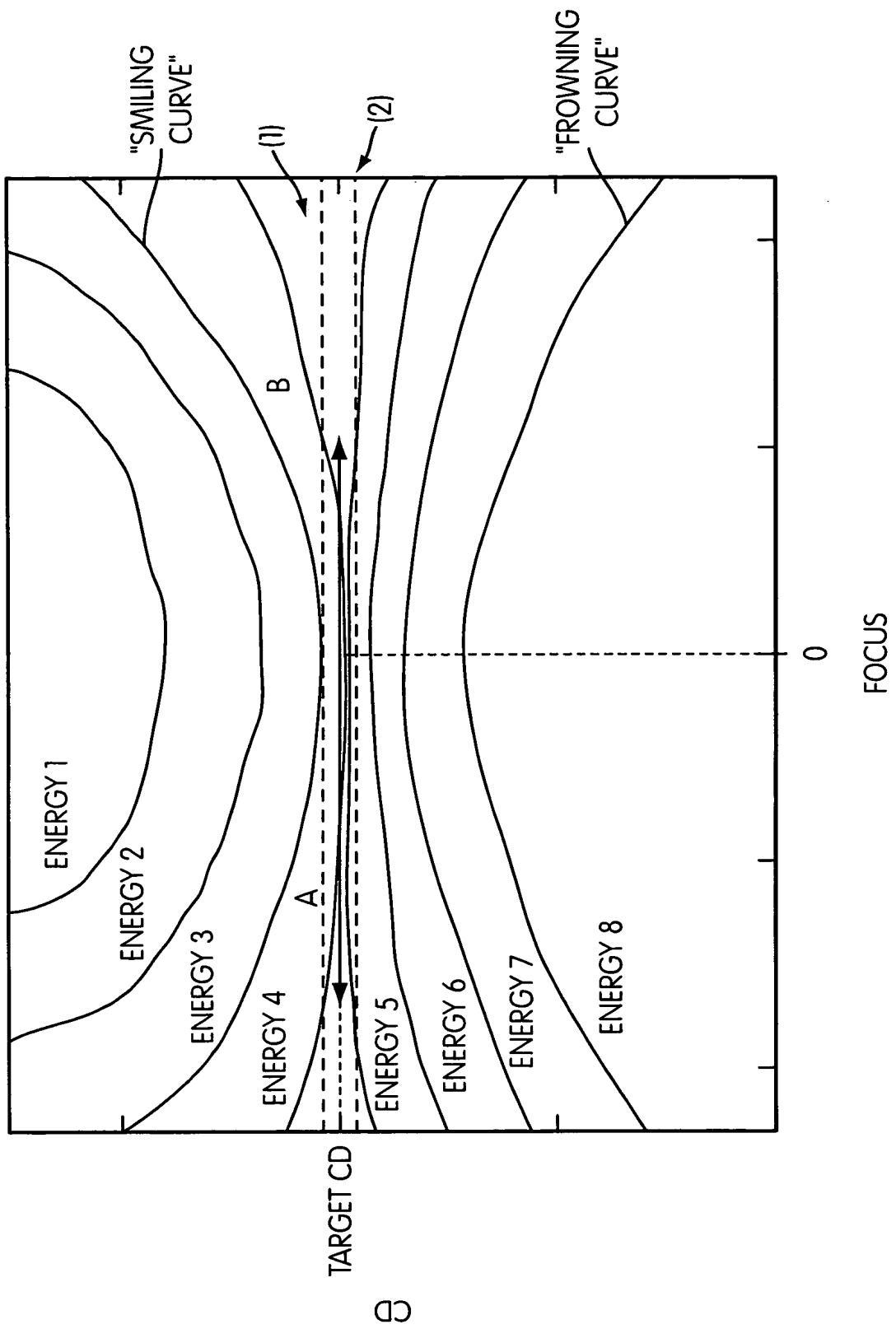


FIG. 12



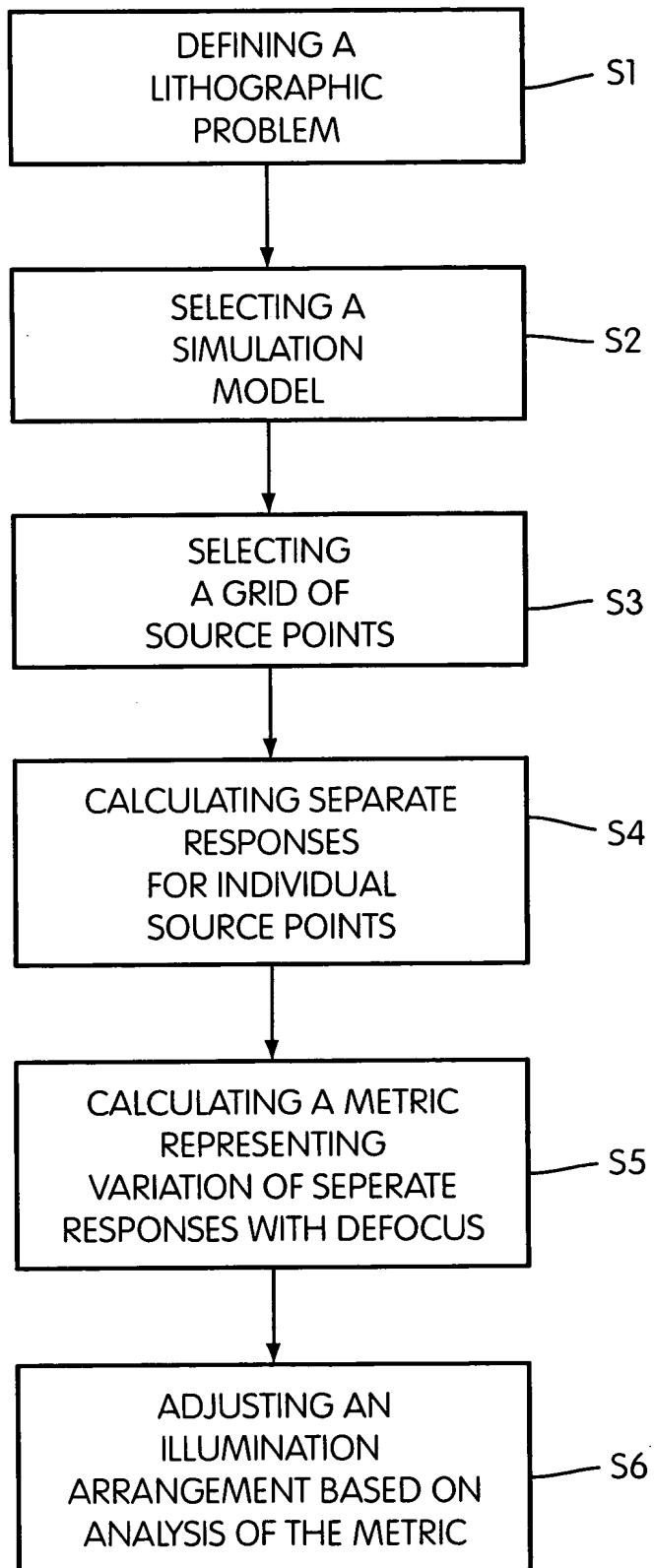


FIG. 14

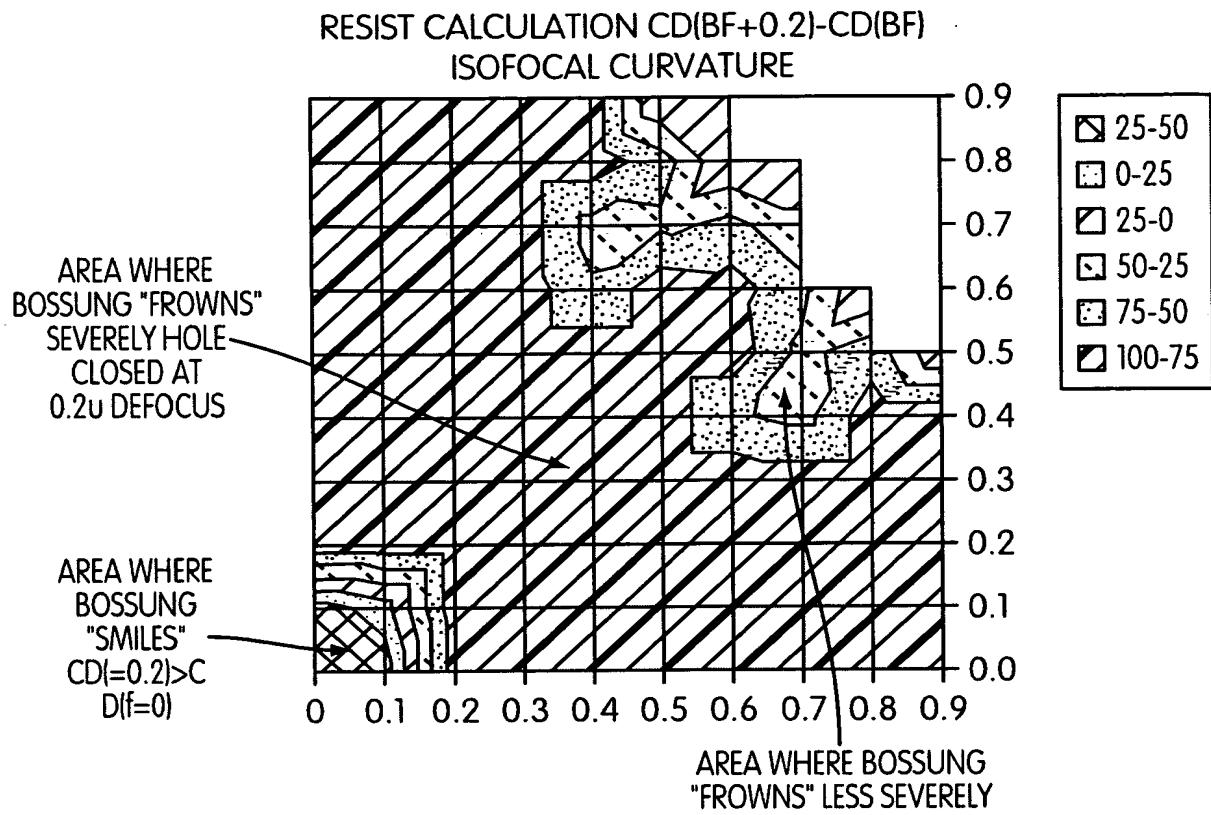


FIG. 15A

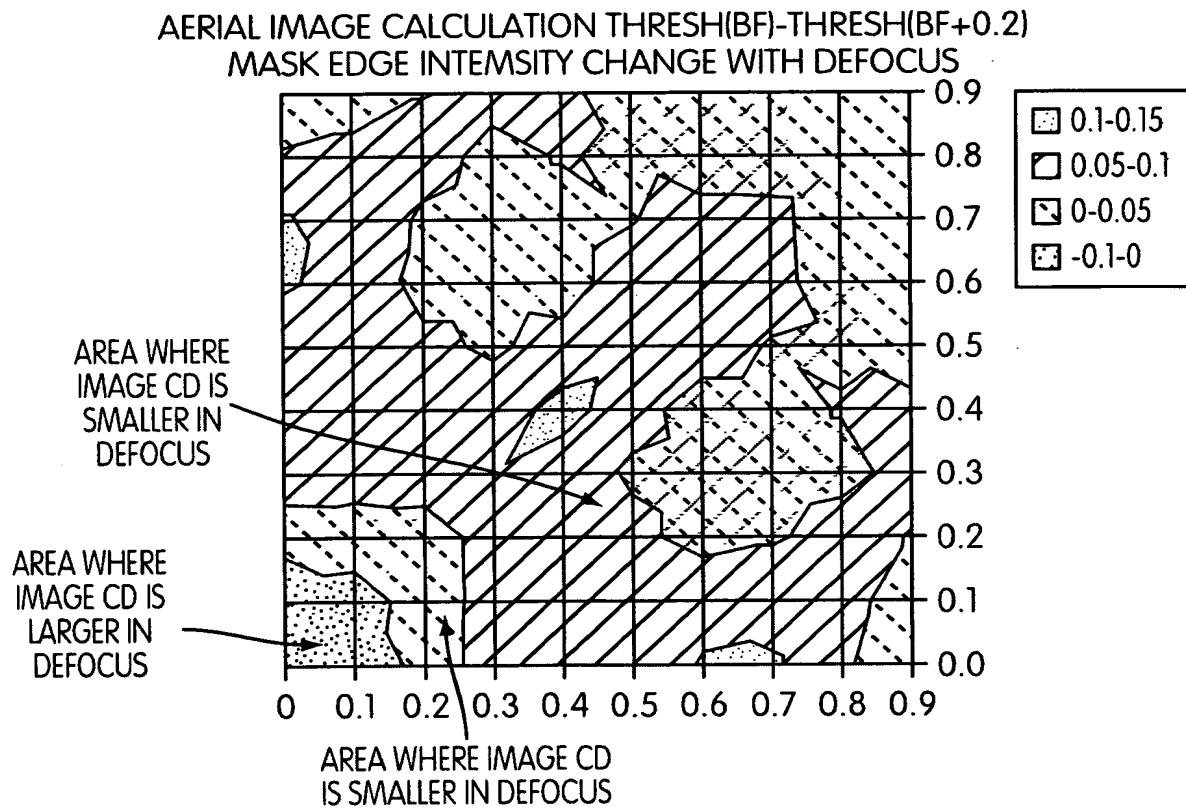


FIG. 15B

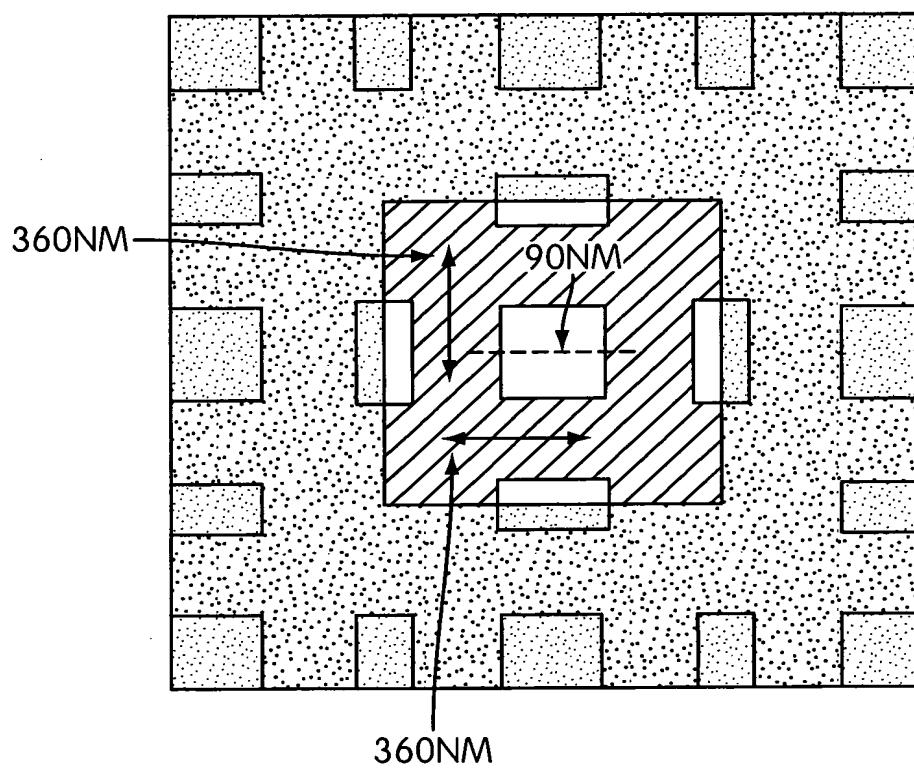


FIG. 15C

RESIST CALCULATION $CD(BF+0.2) - CD(BF)$
ISFOCAL CURVATURE

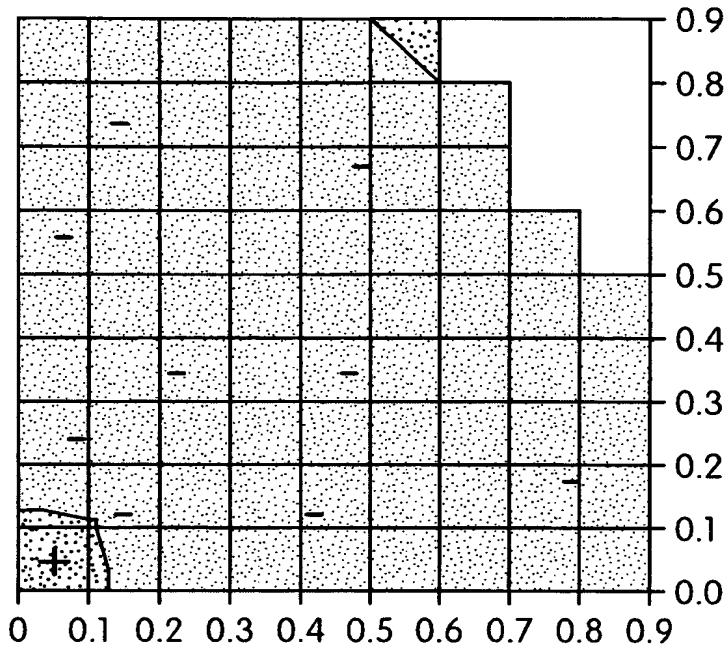


FIG. 16A

AERIAL IMAGE CALCULATION $THRESH(BF) - THRESH(BF+0.2)$
MASK EDGE INTENSITY CHANGE WITH DEFOCUS

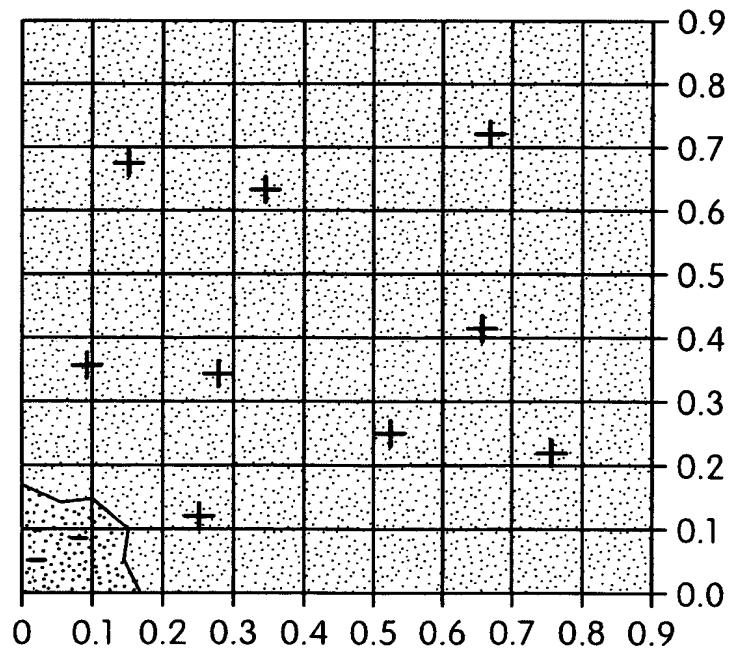
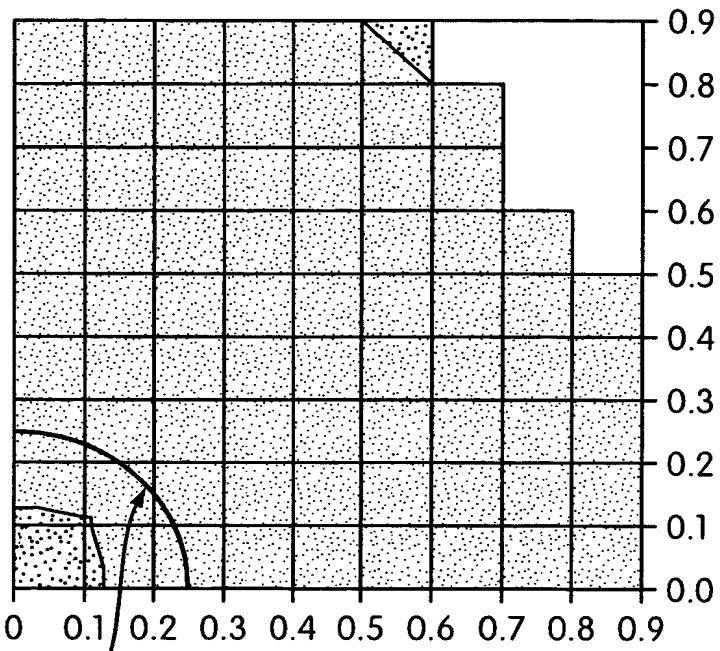


FIG. 16B

ISOFOCAL CURVATURE



$\sigma = 0.25$ COMBINES AREAS OF + AND -
ISOFOCAL CURVATURE

FIG. 17

AT $\sigma=0.25$, PROCESS IS APPROXIMATELY ISOFOCAL.
DOF IS GOOD BUT DOSE LATITUDE IS LOW.

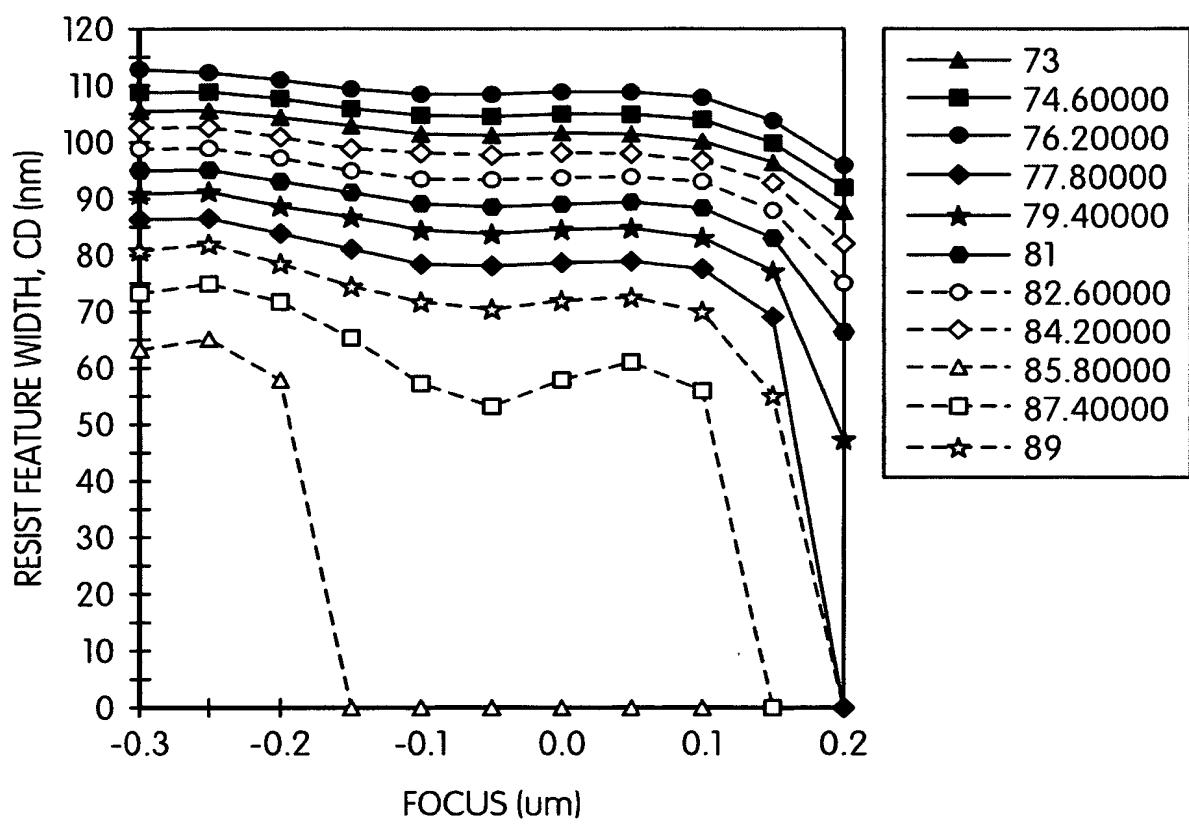


FIG. 18

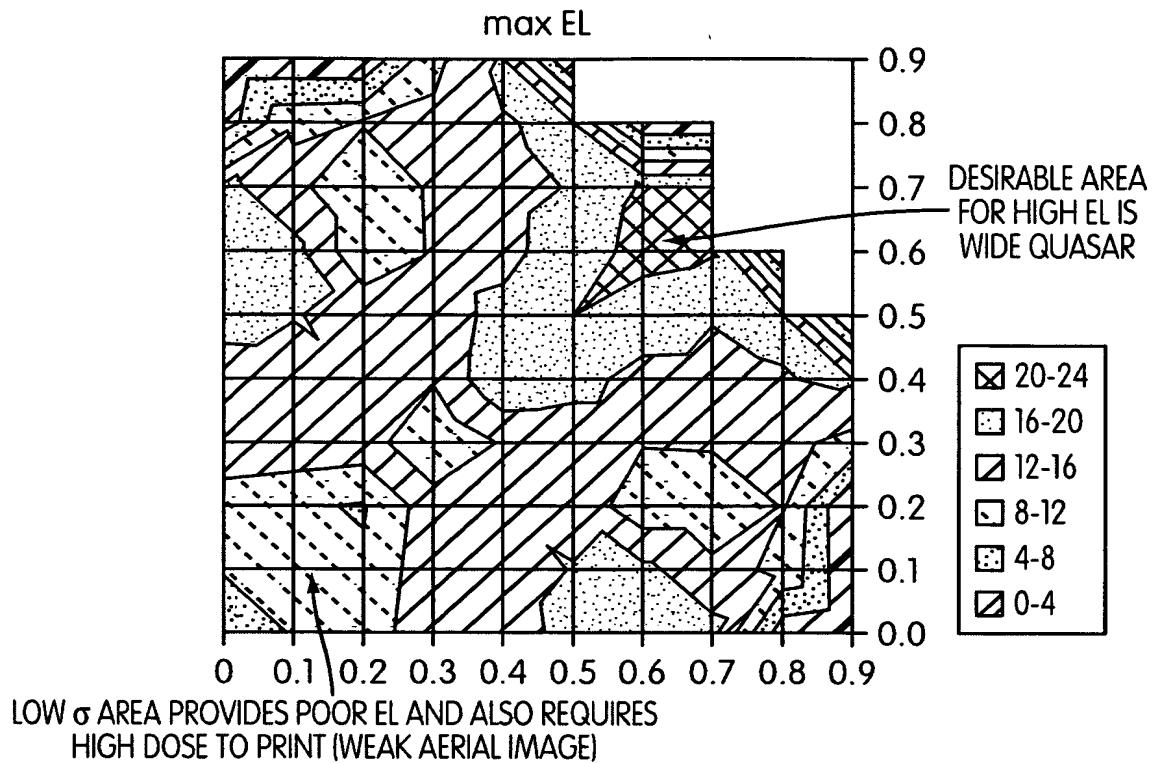


FIG. 19A

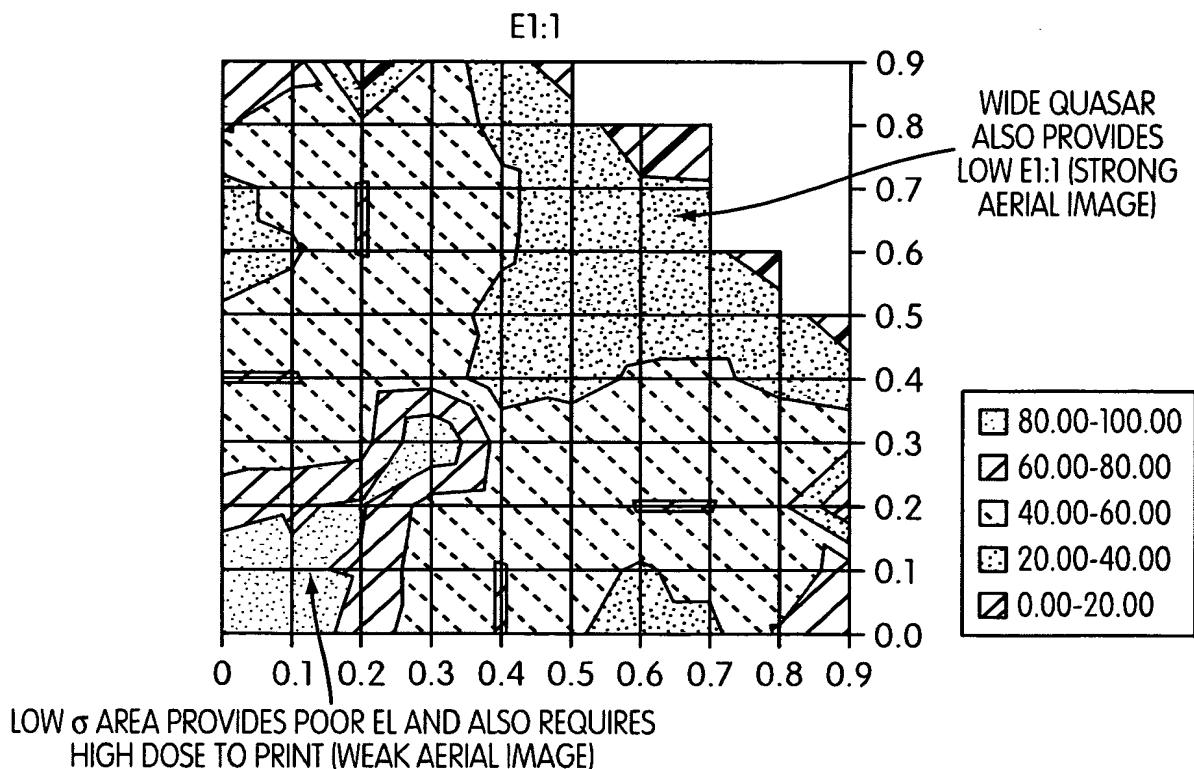


FIG. 19B

$$\text{ILLUMINATOR} = \sigma(0.1 \text{ conv}) + (0.92/0.88Q5^\circ)$$

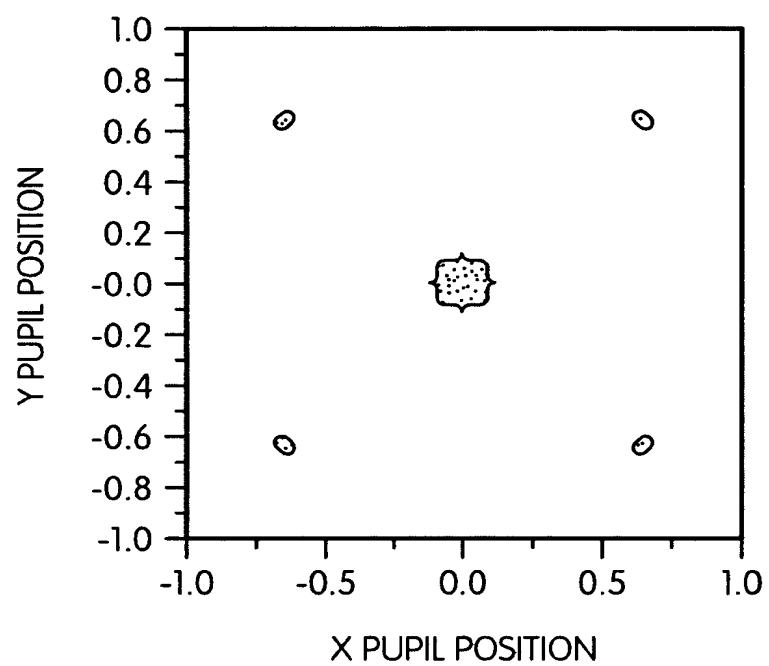


FIG. 20

CUSTOM #2

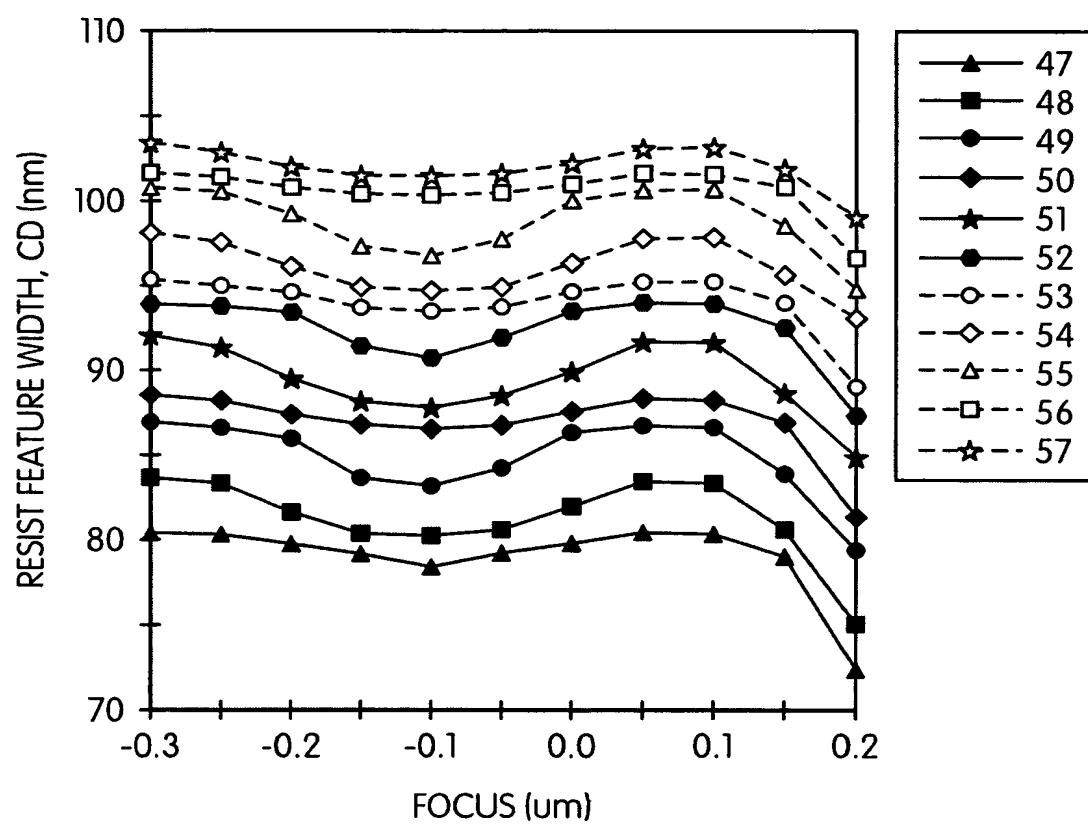


FIG. 21

EXPOSURE LATITUDE vs. DOF

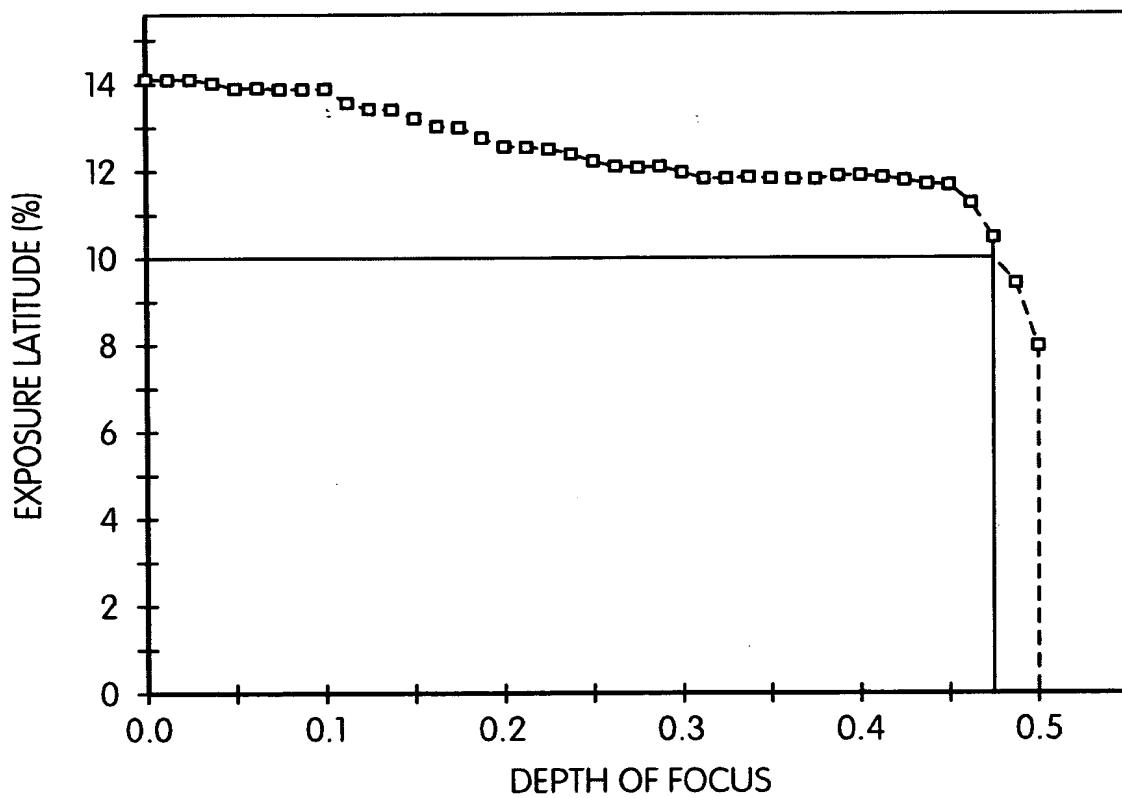


FIG. 22

OPTIMIZATION METHOD	ILLUMINATION	max EL	max DOF	DOF @ 10% EL	DOF @ 5% EL
STANDARD	0.95/0.70Q30°	18%	0.3	0.18	0.24
SIMPLE ISOFOCAL COMPENSATION	0.25 conv	8%	>0.55	0	0.29
HIGH EL ISOFOCAL COMPENSATION	0.92/0.88Q5°+0.1conv	16%	>0.65	0.57	0.63

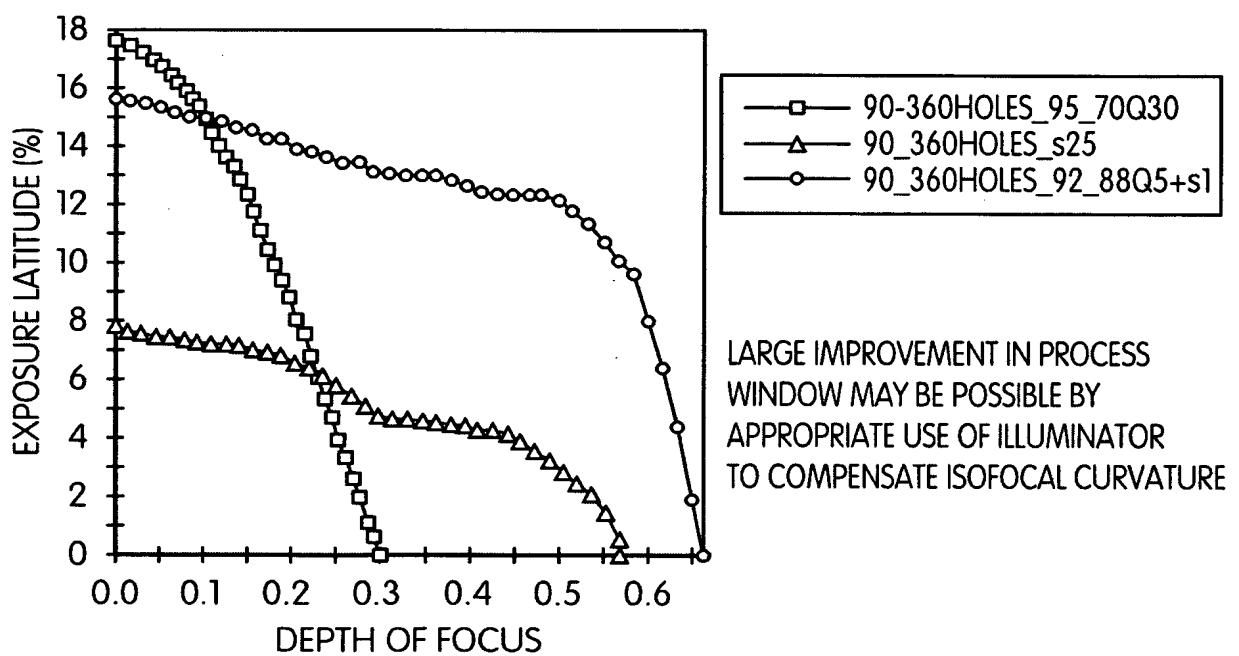


FIG. 23

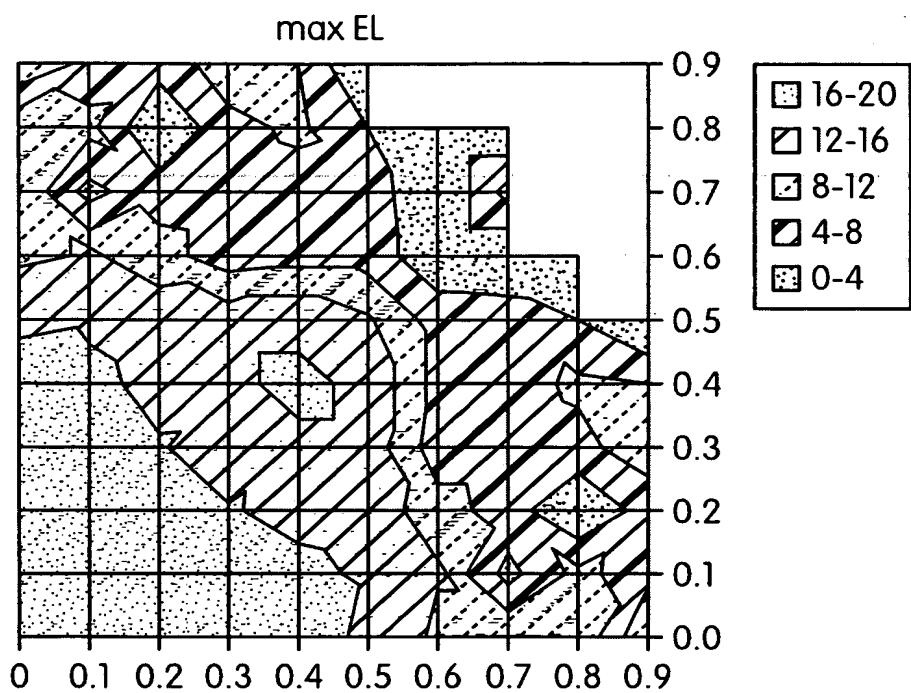


FIG. 24A

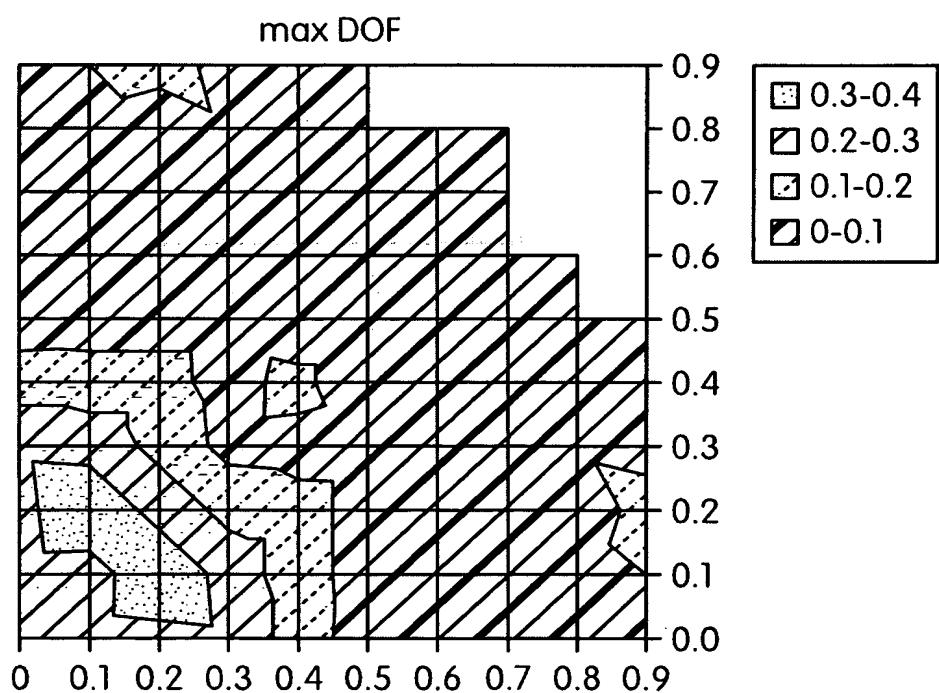


FIG. 24B

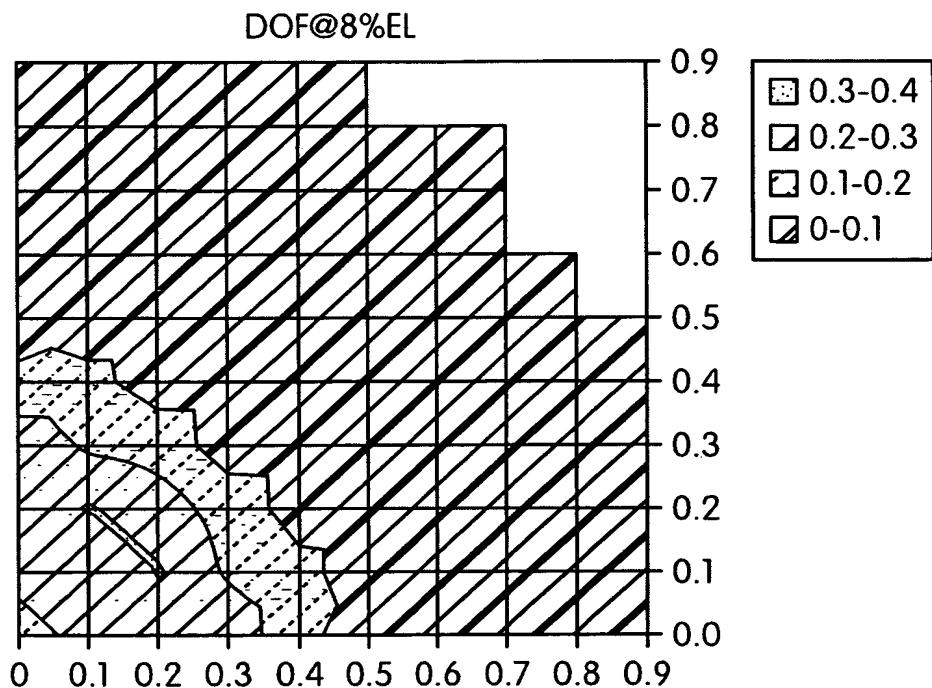


FIG. 24C

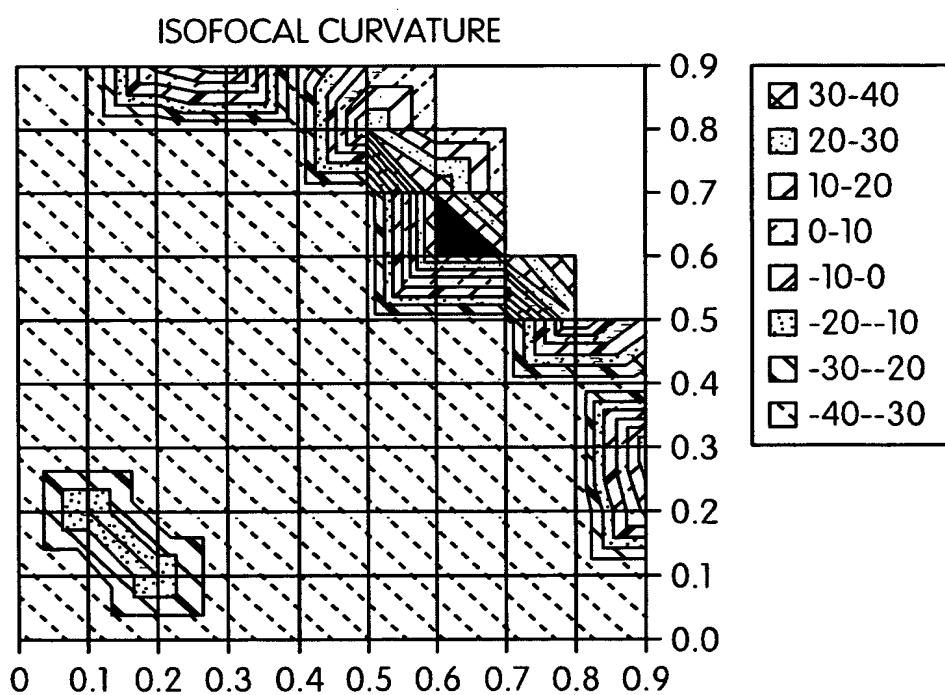


FIG. 24D

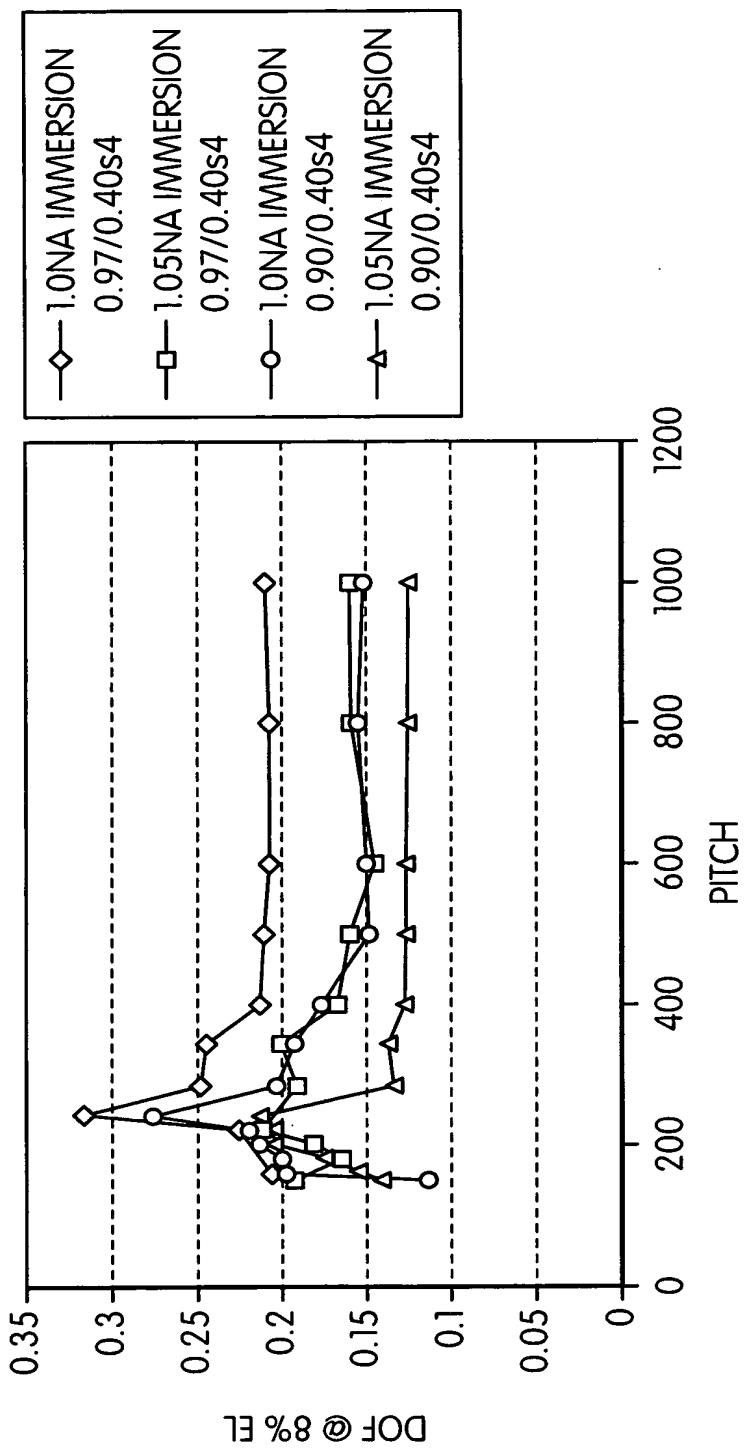


FIG. 25A

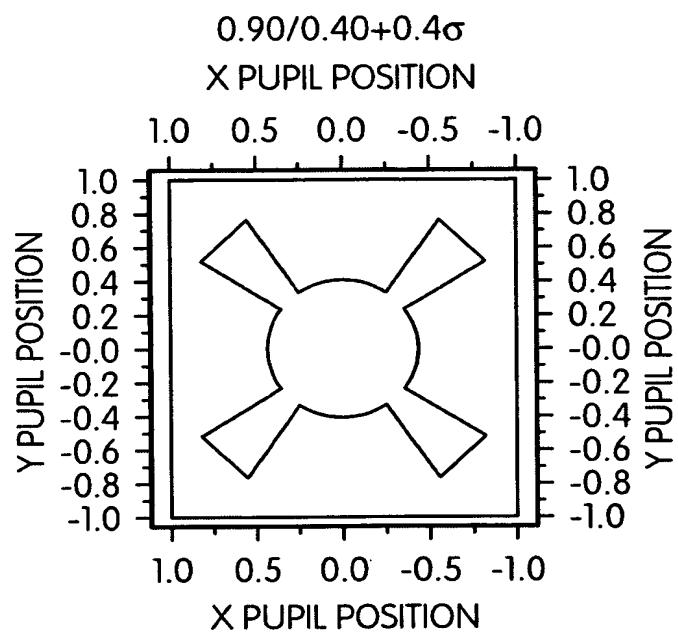


FIG. 25B

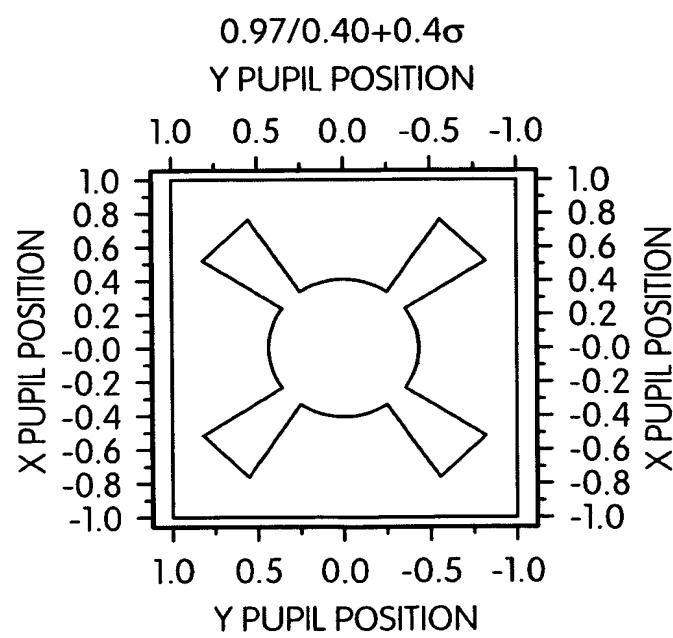


FIG. 25C